

6

Government of Kerala
ഭാഗ മുഖ്യമന്ത്രി
2007



Reg. No. ०३१ श्रीमद
KL/DMN/1220K5-2008

KERALA GAZETTE

കേരള ബന്ധപ്പെട്ടിക്കൾ

PUBLISHED BY AUTHORITY

ජාත්‍යික රුඩීම් සංඝ්‍යා පොරුවෙන් පෙන්වනු ලබන මාර්ග

Vol. LIII Thiruvananthapuram, Tuesday
October 52 Malayalam Era, 1112

11th September 2007
2007 ଅକ୍ଟୋବର ୧
20th Bhadra 1929
1929 ଜାନେ ୨୦

No. 36

PART III

Department of Electrical Inspectorate

www.elsevier.com

Digitized by srujanika@gmail.com

WHAT IS ADOBE AIR?

“**காலை காலை காலை**
ஒத்துப் பாலை பாலை
ஏற்றுவது விரைவாக
நடந்துவரும் சூரியன்.

(४२८)
क्षमप्रदा,
संवेद त्रिविलास
तीरुपाद विश्वा
संविधान विविधा

www.orientmoon.com

www.Planet-2002.com

1. கால்வாய்.—போதுமான "கால்" என்று
உள்ள கால்வாய் என்பதை தீவிரமாகக் கொண்டு
ஏதேனும் நடவடிக்கை செய்ய வேண்டுமென்று
ஒரு நோயாக விவரிக்கப்படுகிறது.

(2) "Therapeutic ultrasound" may be used to reduce pain and improve function in patients with musculoskeletal conditions.

(+) "ນຳກີ່ມານີ້" ດົດນິຈົມກັບຕົວອົບໃຈຕົວເລື່ອງທີ່

(5) "សេដ្ឋកិច្ច" ឬ "សេដ្ឋកិច្ចបណ្តុះបណ្តាល" និង "សេដ្ឋកិច្ច សេវាប្រព័ន្ធដែល បានបញ្ជាក់ថា "មួយ" គឺជាអនុសាស្ត្រ។ សេដ្ឋកិច្ច សេវាប្រព័ន្ធ ត្រូវបានរាយការណ៍ នៅក្នុងសេដ្ឋកិច្ច។

३. अर्थात् जाति विभाग, — यह विभाग की
जाति, जैते, जैती, जैती, जैती विभाग
परिवर्तन के लिए विभागीय है।

3. କ୍ରମାଂକ ୨୦୩—ମୁଖ୍ୟ ବିଭାଗରେ ଅନୁଯାୟୀ
ପରିଚ୍ଛିତ ପରିପାଲନ ୧୮ ମାତ୍ରାଙ୍କ ଉପରେ
ବେଳାରୀରେ ଥିଲା ୫୫ ମାତ୍ରାଙ୍କ ଉପରେଇବେଳାରୀ
୧୦ ମାତ୍ରାଙ୍କ ଉପରେଇବେଳାରୀ ଏହାରେ ପରିଚ୍ଛିତ
ପରିପାଲନ ଥିଲା।

5. ດ້ວຍໃຫຍ່ ອົງກອນ ອົງກອນ ດ້ວຍໃຫຍ່ ອົງກອນ
ເລື່ອມີຄວາມສັບສົນ ຕະຫຼອດໄລຍະອານຸພາບ ສຳເນົາລົງລົງ
ຜ່ານປະຕິບັດ ເພີ້ມຕົວ ຕົວແທນຢູ່ພັກ ແລະ ດີຈຸດ
ມົນຕົວ ມີມູນຕົວ ດີຈຸດ ດີຈຸດ ດີຈຸດ

6. **অসমীয়া সাহিত্যিকসম্মেলন** বাল্মীকি
নথি পত্ৰিকা প্ৰকাশন
সংস্থা প্ৰস্তুতি।

ל. מילאנו טרנובסקי¹ מזכיר כי ב-1900 נערך ב-

၃. ពាណិជ្ជកម្ម និងសំណង់សំខាន់សំខាន់ និងសំណង់សំខាន់

9. முனிசிபல் குழுமத்தை விட்டு விரிவாகவே
உள்ளது, "முனிஸிபல் குழுமத்தை விட்டு
உள்ளது" என்றும் விரிவாகவே
உள்ளது" என்றும் விட்டு விரிவாகவே.

10. **מִתְבָּרְכָה** - מִתְבָּרְכָה לַעֲמָדָם
שֶׁלֹּא אָמַרְתָּ לוֹ.

(2) מילוי תפקידים מנהליים וטכניים במוסדות חינוך
ובמוסדות רפואיים (בוגרים של תיכון וHIGH SCHOOL)
הנומינטים מוסמנים בunderline.

(a) DJANGO®

(iii) මිනුදෙනු සඳහා,

(3) **Geographical distribution** (also called **geographic range**)
occurs in single localities or many, widely spaced.

(+) ഇന്ത്യൻ സിനിമാ പോലീസ് എന്നും

(B) ප්‍රජාව සිදුක්‍රියාත්මක ක්‍රියාවලීය ව්‍යුහ සඳහා
පොදුක්‍රියාත්මක තුළ නිශ්චාල මූල්‍ය 10 රුපු, මෑ. x 24 රුපු, මෑ.
පොදුක්‍රියාත්මක මූල්‍ය නිශ්චාල මූල්‍ය.

รุ่นที่ 1 ของกลุ่มเด็กที่มีความต้องการทางสังคมสูง

“**பூஷண முறையை விட்டுவிட வேண்டும்.**”

“សំបាន” និងវិធី និងរបៀប ដែលបានបង្ហាញ និងបាន

2. "Lobby" සංඛ්‍යා ප්‍රතිච්ඡල මැයි 2018 නොවුනු යුතුවේ
100 අංශ ප්‍රතිච්ඡල". මෙයින් ප්‍රතිච්ඡල ප්‍රතිච්ඡල
අංශයෙහි 50 අංශ ප්‍රතිච්ඡල මැයි 2018 නොවුනු යුතුවේ.

3. **九思堂** 《九思堂詩集》(明刻) 409
是李公麟所著《九思堂詩集》的序文。文中說
「九思堂者，吾之號也。」

4. **Multi-Platform and Location's Relationship with Technology Adoption** —

(ii) अमिताली का नाम - १०-८०१ अग्रहण-
लोक मंडपान्डि विहारीलाल
लोकपालक २५ वडा, सुनाजी-
पुरानी।

(2) *Subfusiform* *caeruleo-* *fuscum*. 180-200 *mm* *hl*
with *yellowish* *yellowish* *yellowish* *yellowish* *yellowish* *yellowish* *yellowish*

DETAILS OF ELECTRICAL SUPERVISOR 'B' GRADE EXAMINATION—2007

PART I

PAPER—I

Basic Electrical Engineering—Theory

Maximum Marks—100. Time—3 Hours.

1. Principles of Electricity:

Q Electric pressure, current and resistance, Ohm's Law, Kirchoff's Law—Specific resistance. Law of resistance and their application for calculating voltage drop. Series and parallel circuits. Practical unit of voltage, current, resistance, power and energy. Relation between electrical power unit (KW) and mechanical power unit (H. P.), Inductance, Capacitance, Reactance, Impedance.

2. Electromagnetism.—Production of E.M.F.—Faraday's and Lenz's Laws and Fleming's hand rules. Magnetic, chemical and heating of electric current. Magnetic properties of material, Permeability Hysteresis Electromagnets and their application.

3. Materials—Conductors.—Semi conductors and insulators classes of insulation—Insulating materials and their relative merits. Transformer Oil, Effect of heat and moisture on insulation. Lubricants and their uses—Dielectrics—Dielectric strength permittivity.

4. Circuits.—Series, Parallel, Series, Parallel circuits, Phasors addition, subtraction, multiplication and division, Complex impedance—Phase Sequence Simple L. C. P. circuit and solutions—Star delta connections and transformations. Power and power factor—Net work solutions—3 phase circuits balanced and unbalanced loads—Symmetrical components and sequence impedance.

5. Generation of Electricity.—(a) A. C. Generators—Constructional features and essentials components—E. M. F. equation—Synchronous Resistance Regulation, Voltage control—Synchronising, Synchroscopes—Bright lamp and dark lamp methods.

(b) D. C. Generators—Essential components and constructional features, Shunt, Series and compound dynamos and their characteristics. Classes of Sparking-Interpoles, Commutators and their maintenance, Carbon brushes, their adjustment and methods of voltage regulation.

6. Transformer.—Single phase and 3 phase transformers—Constructional features—Transformation ratio—Voltage and current equations—Magnetising current leakage reactance—3 phase connections and vector group equivalent circuit—Core and copper losses, Efficiency Auto transformers Temperature rise Scotta connection—Instruments transformers. Tertiary windings, open circuit and short circuit tests.

7. Motors.—(a) A. C. Motors—Rotating magnetic field Single phase induction motors—Different types—Working principle 3 phase induction motors—Squirrel cage and slipring—Methods of starting, Sliprings—Slip characteristics No load and blocked rotor tests—Efficiency—Circle diagram and determination of characteristics—Synchronous motors Commutator motors

(b) D. C. Motors—Theory of series, shunt and compound wound motors, their uses, installation methods of starting and speed control and reversal of direction.

8. Converters.—Motors generators etc—Rectifiers—Single phase and 3 phase battery chargers—Voltage equation—Filtering. Half wave, full and bridge rectifiers.

9. Batteries.—Primary cells, Dry cells, Storage or secondary batteries—Constructional feature of storage batteries or accumulators and their installations. Lead acid cells, Nickel iron or alkaline cells, Initial and subsequent charging of batteries, charging circuits and their calculations. Series and parallel circuits. Maintenance of batteries. Use of hydrometers.

10. Transmission and Distribution.—Line constants—Determination of voltage drop Regulation—Short, medium and long lines. Ferranti effect Economic, size of conductors—Corona loss—Power loss—Design of a ground conductor—Lightning arrestors.

11. Constructional feature of U. G. Cables.—Fault location—Murray and valley loop tests—Charging currents.

PAPER-II

Basic Electrical Engineering—Application

Maximum Marks—100. Time—3 Hours.

1. Design of Electrical Installation.—Load survey—Domestic—Commercial and industrial installations.

Connected load—Maximum demand—Demand factor—Diversity Load—Selection of sub-station site—Transformer capacity—Selection of distribution voltage—Main and sub-switch boards—Distribution fuse board—M.C.C.—P.M.C.C.—P.C.C. distribution layout—Location of switch boards—Fault level calculations.

2. Selection of Equipment.—Different types of breakers—O. C. B.—A. C. B.—M. G. G. B.—M. G. B.—Contractors. Breaking capacity—Making capacity. Selection of Distribution fuse board—Continuous ratings—H. R. C. fuses prospective currents—Cut off values—Selection of major and minor fuses—Garding switch boards, design of outlets, fabrication, design—Parameters—F. B. A. regulations. Cable: short time and continuous rating—Derating factors—Methods of laying—Design aspects different type of cables Hazardous areas—Motors—Section method of starting, D. C. Motors—Speed control, Limitation on starting current and voltage drop—System disturbance. High voltage motors, Protection—capacitors—Power factor improvement selection and method of connection special type transformers—Furnace transformers—Welding transformers—Rectifier transformers scott connection tertiary winding—Captive generation—Determination of capacity—Load segregation double bus system change over arrangements I. S. Regulations.

3. Protection—Basic methods of Transformer, Generator, Motors and Fader protection, Thermal and magnetic release—Relays—I.D.M.T. instantaneous type—over current Earth fault and earth leakage relay—Time and current setting—G. T. Specification and error factors P. Tr. Static Relays I.S. Regulations.

4. Earthing—Determination of size of earth bus, number of earth electrodes—Plate, Pipe and strip electrodes—Resistivity of soil—Measurement—Computation of earth resistance—Different materials used for

earth-filler, conductors-Green's densities-Corrosion factors-Distribution of electrode-joints in earth conductors. Size of earth conductor for equipment of various capacities. Earth continuity wire-earth continuity resistance. I.B. Regulation.

5. Cable Joining.—Aluminum and copper cable joints—Type precautions—Terminations—I. S. Regulations.

6. Clearance.—Statutory clearances of live parts from ground and building—A sectional clearance—Equipment clearance—With boards clearance inside and outside—Oil containing equipment. Indoor and outdoor environmental clearance.

7. Special Types of Installations.—X-ray, Neon Signs, Lift, Cinema installations—Relevant Rules, circulatory Safety precautions—Falling wire Precautionary-preventive measures—Energy meter—Tidy vector meter—Installations and computations of energy.

B. Testing and Maintenance.—Insulation Tester—Earth Tester—Relay testing kit. Schering bridge Break down test of oil—Single phase and 3 phase energy meter testing—Volt meter—Ammeter—Wattmeter—Different installations—Recommended values of insulation resistances—Earth resistance measurements. Desired values Continuity measurements Relay testing Maintenance of various electrical installations—Relevant standards and regulations.

9. Rules and Standards.—Indian Electricity Act and Rules, Kerala Cinema Regulation Rules—Kerala Electricity Licensing Board Rules—Provisions applicable to consumers and contravention in particular I. S. specifications I. B. C. Regulations.

PART III

Fractional and Whole Yards. Medium Mats—100

A practical Examination based on the Syllabus in Part i will be held.

Part II.—The candidate should obtain 50% in Part II for 3 marks.

(i) The successful candidate will be eligible for Electrical Supervisor Competency Certificate and

- the following:

 - (a) Those who pass the examination and secure marks upto and including 180—All Low Voltage Installations and Medium Voltage Installations upto 25 K.V.
 - (b) Those who pass the examination and secure marks above 180—All Low Voltage Installations and Medium Voltage Installations upto 30 K.V.

(ii) Application for extending the scope of the Electrical Supervisor permits will be considered only after one year from the date of issue of the permits and Competency.

www.english-test.net

תמל'ג מיל'ג-1946207 המבש, 2007 המבש'ס' 7.

ດីជាមួយ សិល្បៈនៃ អគ្គិសារ "សុ" ដែលបានរាយការណ៍
នូវការងារខ្លួន ពីរាជរដ្ឋ និងក្រសួងពេទ្យ 2007
និងក្នុងការ ចាប់ផ្តើម ពីថ្ងៃទី ៣ ខែ មីនា ឆ្នាំ ២០១៨

Summary statement

- ## I. Introduction

1. [CONTINUE](#)

(cont'd) 31-7-2007-# "celloing" (10) 10000²
+ 10000² 10000²

(40) 2006-ის თარიღის დეკემბრის უკიძე
სტეფანი გვივრცხული მიხედვით კიბის და
მარიამ გვივრცხულის შესახებ და მათი და
მარიამ გვივრცხულის შესახებ და მათი და

3. "ເວັບສຸກທຳມະນີສົມລັບໄຕ" ແລ້ວໃຫ້ອືນດາວິໂຈດ
ແລ້ວມີເປົ້າກົດລົງລົງໄດ້ແລ້ວ, ພະຍົບຕົວ
ຕົກລົງລົງທີ່ມີຄວາມຮັບຮັດໃຫຍ້ ໃຫຍ້ກົດລົງລົງ
ຕົກລົງລົງທີ່ມີຄວາມຮັບຮັດໃຫຍ້ ໃຫຍ້ກົດລົງລົງ

5. «**предметы**» «**одежда**» «**ткань**» «**одежда**» «**ткань**»
имеет **одинаковую**.

6. [www.radiotexts.com](#) is a trademark of [RadioTexts.com](#).

(2) (a) "million" "multi-million"

(ה) מינהל רשות הרכבת הלאומית מינהל רשות הרכבת הלאומית מינהל רשות הרכבת הלאומית מינהל רשות הרכבת הלאומית

(2) **סמלים וסימנים**

25 օվկ պահանջություն ունի առաջարկագիր՝
լուսավորմ 00043-000-90-557 բարեկարգ
ություն և առաջ արկածային առողջության
առաջարկ քայլությունը առաջ առողջության
առաջարկագիրը՝ լուսավորմ 00043-000-90-557 բարեկարգ
ություն և առաջ առողջության առաջարկ քայլությունը

(4) בנין מושג אחד כמשמעותו של מושג אחד
ונבנה "מונחים".

“**בְּעֵד** אֲמִתָּה לְפָנֶיךָ **אַתָּה** בְּעֵד
כְּפָנֵיכֶם תְּהִלֵּתְךָ”

